

**IN THE UNITED STATES DISTRICT COURT  
FOR THE WESTERN DISTRICT OF TEXAS  
WACO DIVISION**

BILLJCO, LLC,

Plaintiff,

v.

APPLE INC.

Defendant.

Case No. 6:21-cv-528-ADA

**JURY TRIAL DEMANDED**

**BILLJCO, LLC'S RESPONSIVE CLAIM CONSTRUCTION BRIEF**

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**All emphasis supplied unless otherwise indicated**

## I. Introduction

Plaintiff, BillJCo LLC ("BillJCo"), is the owner of all right, title, and interest in and to multiple United States patents, including Patent Nos. 10,292,011 ('011 Patent); 8,566,839 ('839 Patent); 8,639,267 ('267 Patent); 9,088,868 ('868 Patent); 8,761,804 ('804 Patent); and 10,477,994 ('994 Patent) (collectively, "the Patents-in-Suit").<sup>1</sup> BillJCo asserts that Defendant, Apple, Inc., infringes one or more claims from each of the Patents-in-Suit.

The Patents-in-Suit disclose many different embodiments of inventions pertaining to wireless transmissions. One of the disclosed embodiments particularly relevant to this case can be referred to as beaconing technology. Beaconing utilizes transmitters that broadcast, among other things, their identifier to nearby electronic devices where different information can be received, processed, analyzed, and may ultimately be presented to the mobile unit of a user.

BillJCo proposes that each of the disputed claim terms and phrases should be given a plain and ordinary meaning as would be understood by a person of ordinary skill in the art ("POSITA") at the time of filing. In contrast, Apple argues for narrow and restrictive claim constructions based on isolated excerpts from the patent specifications pertaining to some preferred embodiments of the invention. Apple curiously characterizes its proposed constructions as "plain and ordinary" while simultaneously contending that the patentee acted as his own lexicographer and gave special meanings to the claim terms. Notwithstanding Apple's self-serving mischaracterization of its claim constructions as "plain and ordinary," they are but a classic example of attempting to narrowly limit claims to some preferred embodiments, and

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<sup>1</sup> Apple submitted copies of each of the Patents-in-Suit with its opening brief. See Dkt. 31-1 through Dkt. 32-6. To reduce the volume of paper, BillJCo will refer to these exhibits.

should be rejected. The plain and ordinary meanings for the claim terms as proposed by BillJCo are what should be adopted by this Court.

## **II. The Patents-In-Suit**

BillJCo asserts that Apple infringes one or more claims from each of the Patents-in-Suit, each of which claims priority to a common application, Application No. 12/077,041 filed on March 14, 2008 ("041 application"). Each of the Patents-in-Suit relates, in part, to specific and particularized inventions associated with beacon technology and the related protocols and specifications which facilitate and enable aspects of the beacon technology ecosystem including devices capable of beacons, manufacturers of beacon transmitting devices, application developers, and beacon deployers.

## **III. Level of Ordinary Skill In The Art**

For each of the Patents-in-Suit, BillJCo contends that a POSITA as of earliest claimed priority date would have at least a Bachelor's degree in electrical engineering, computer science, or a related field, and one to two years of work experience in wireless communications and mobile computing devices, or the equivalent. Additional graduate education could substitute for professional experience, or significant experience in the field could substitute for formal education, and vice versa. Apple's position for who constitutes a POSITA is stated somewhat differently (see Dkt. 32 at 4-5), but is substantively very similar to BillJCo's.

## **IV. The Established Precedent On Claim Construction Demonstrates The Disputed Claim Terms Should Be Afforded Their Plain And Ordinary Meaning**

When construing patent claims, the general rule is that claim terms are given their plain and ordinary meaning. *Phillips v. AWH Corp.*, 415 F.3d 1303, 1312 (Fed. Cir. 2005) (en banc). The plain and ordinary meaning of a term is the "meaning that the term would have to a person of ordinary skill in the art in question at the time of the invention." *Id.* at 1313. While a patent's

"specification may aid the court in interpreting the meaning of disputed claim language, particular embodiments and examples appearing in the specification will not generally be read into the claims." *Comark Commc'ns, Inc. v. Harris Corp.*, 156 F.3d 1182, 1187 (Fed. Cir. 1998) (internal quotation omitted). Indeed, "it is improper to read limitations from a preferred embodiment described in the specification—even if it is the only embodiment—into the claims absent a clear indication in the intrinsic record that the patentee intended the claims to be so limited." *Liebel-Flarsheim Co. v. Medrad, Inc.*, 358 F.3d 898, 913 (Fed. Cir. 2004).

The "only two exceptions to [the] general rule" that claim terms are construed according to their plain and ordinary meaning are when the patentee (1) acts as his/her own lexicographer or (2) disavows the full scope of the claim term either in the specification or during prosecution. *Thorner v. Sony Computer Entm't Am. LLC*, 669 F.3d 1362, 1365 (Fed. Cir. 2012). Lexicography is a narrow exception to the plain and ordinary meaning rule that applies only where the specification "reveal[s] a **special definition** given to a claim term by the patentee that differs from the meaning it would otherwise possess." *Phillips*, 415 F.3d at 1316. In other words, the lexicography exception is available to change a definition from the plain and ordinary meaning only where a patentee "'clearly set forth a definition of the disputed claim term' other than its plain and ordinary meaning." *Continental Circuits LLC v. Intel Corp.*, 915 F.3d 788, 796 (Fed. Cir. 2019), quoting, *Thorner*, 669 F.3d at 1365. To act as a lexicographer, the standard "is exacting, requiring the patentee to 'clearly express an intent' to redefine a term." *Baxalta Inc. v. Genentech, Inc.*, 972 F.3d 1341, 1349 (Fed. Cir. 2020), quoting, *Thorner*, 669 F.3d at 1365-66. As for the narrow exception of disavowal, the patentee's statements in the specification or prosecution history must represent "a clear disavowal of claim scope." *Thorner*, 669 F.3d at 1366. When "an applicant's statements are amenable to multiple reasonable interpretations, they

cannot be deemed clear and unmistakable." *3M Innovative Props. Co. v. Tredegar Corp.*, 725 F.3d 1315, 1326 (Fed. Cir. 2013).

In addition to the intrinsic evidence, extrinsic evidence can also be useful, but it is "less significant than the intrinsic record in determining the legally operative meaning of claim language." *Phillips*, 415 F.3d at 1317 (internal quotation omitted). Technical dictionaries may be helpful, but they may also provide definitions that are too broad or not indicative of how the term is used in the patent. *Id.* at 1318. Expert testimony also may be helpful, but an expert's conclusory or unsupported assertions as to the meaning of a term are not. *Id.*

**A. "an object ... containing information and instruction for presenting said information" ('839 Patent, Claim 1)**

BillJCo's Proposed Construction	Apple's Proposed Construction
<i>Plain and ordinary meaning</i>	<i>a self-contained object with both the information for presentation and the instructions describing under what conditions to present that information</i>

In computer science, an "object" is a well-understood term. Ex. H, Sharony Decl. ¶ 87. In computer programming, it is an abstract data type created by a developer, which can include multiple properties and methods and may even contain other objects. *Id.* The claim language itself explains the claimed "object" to "contain information and instruction for presenting said information." Nothing about this claim language is ambiguous, and Apple does not argue otherwise. Yet, Apple improperly seeks to add limitations to the straightforward claim language by requiring that the instructions "describe[e] under what conditions to present that information" based on a distortion of the prosecution history. Apple's proposed revision of the claim should be rejected.

The claim phrase at issue, in its entirety states:

receiving, by said receiving data processing system, an object, said object containing information and instructions for presenting said information, said instructions including

an event specification to be monitored by said receiving data processing system for triggering when to present said information, said event specification including a whereabouts condition and a condition for detecting a particular user action by a user of said receiving data processing system, said whereabouts condition determining if a location of said receiving data processing system is in a vicinity of another data processing system. Dkt. 32-2, '839 Patent, Col. 64:61 – Col. 65:5.

A plain reading of the claim language, in its entirety, defines the "object," the "information," and "instructions." As the claim itself makes clear, the "object" contains information and instructions for presenting the information. The "instructions" include an "event specification." This event specification includes a whereabouts condition and a condition for detecting a particular user action. As such, what the claimed "object" contains, and also the instructions for presenting the information, are expressly stated in the claim itself. Apple's proposed construction does nothing but to add an unrecited limitation and inject confusion.

The '839 Patent specification, which incorporates by reference the disclosures from earlier filed applications,<sup>2</sup> use the term "object" in a fully consistent manner with the plain and ordinary meaning for "object." For example, the specification for patent application serial no. 12/287,064, which became the '267 Patent explains that an example of an objection is, *inter alia*, a WDR. Dkt. 32-3, '267 Patent, Col. 95:15-19 ("LBX of data may also be viewed as LBX of objects, for example, a WDR, WDR request, TDOA request, AOA request, charters, permissions, data record(s), or any other data bay be viewed as an object. An subset of an object

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<sup>2</sup> See Dkt. 32-2, Col. 1:7-27. The '839 Patent states "it is to be appreciated that parent applications are intended and assumed to be included herein in their entirety...." These include application serial nos. 12/077,041 (issued as U.S. Patent 8,600,341); 12/287,064 (issued as the '267 Patent); and 12/590,831 (issued as U.S. Patent 8,634,796). See, *Advanced Display Systems, Inc. v. Kent State University*, 212 F.3d 1272, 1282 (Fed. Cir. 2000) ("Incorporation by reference provides a method for integrating material from various documents into a host document—a patent or printed publication in an anticipation determination—by citing such material in a manner that makes clear that the material is effectively part of the host document as if it were explicitly contained therein.").

or data may also be viewed as an object"). In addition, as is discussed in detail below with respect to the disputed claim term "wireless data record," i.e., the data that may be part of a WDR may include any combination of data, instructions, or identification information. See section regarding "wireless data record" below. By way of further example that "object" is used according to its plain and ordinary meaning, the '839 specification states "A MADR [Message Area Data Record] is an object because it contains data along with associate methods for processing." Dkt. 32-2, '839 Patent, Col. 3, ll. 49-50; Ex. H, Sharony Decl. ¶ 88. Similarly, the specification explains that "MADRs are operating system independent objects for being processed locally or remotely, and are shared between systems based on permissions." Id., Col. 16: 39-41. The '839 Patent specification further explains that the "object" may be self-contained, but does not require it. Id., 45:29-32 ("MADRs **may be** completely self contained objects containing FIG. 24 configuration information (e.g. in field 9850f) for being distributed to receiving MSs and presented there accordingly."). Therefore, "object" should be afforded its plain and ordinary meaning, and Apple's proposed construction, which improperly adds unrecited limitations to the claims, should be rejected.

In support of its proposed departure from the plain and ordinary meaning of the claim phrase, Apple cites an excerpt from the prosecution history of the '839 Patent. Dkt. 32 at 5. While Apple correctly quotes the prosecution history, the full context of applicant's argument therefrom belies Apple's "lexicography" argument, and clarifies how the applicant distinguished the prior art. In particular, the applicant explained that the cited prior art did not:

"alone or in combination teach Applicants' amended claim language 'said object containing information and instructions for presenting said information, said instructions including an event specification to be monitored by said receiving data processing system for triggering when to present said information'. As stated by the Examiner, 'the user can then configure one or more event triggers to be sensed by the redirector program to initiate redirection of the user data items' (Office Action page 3). Applicants' trigger

event is not configured by the user. Applicants' trigger event is automatically accomplished with 'configuring, by said receiving data processing system, a trigger event for said event specification in response to said processing, by said receiving data processing system, said instruction'." (Dkt 32-8, p. 12).

This "trigger" is expressly recited in the claim language as part of the event specification, which is in turn part of the claimed "instructions." Moreover, Applicant distinguished the cited prior art arguing the cited prior art did not disclose "objects" because they did not teach a "single data processing system carrying out all processing." Id. As such, the limitations that formed the basis of the Applicants' argument distinguishing the prior art are expressly stated in the claim. Apple's attempt to add even more language should be rejected.

**B. "a Bluetooth communication interface" ('994 Patent, Claims 1-3, 8-10, 14-16; '868 Patent, Claim 1; '839 Patent, Claims 1, 11)**

BillJCo's Proposed Construction	Apple's Proposed Construction
<i>Plain and ordinary meaning</i>	<i>Bluetooth as defined in version 2.1 + EDR and earlier versions of the Bluetooth Core Specification</i>

The relevant claims recite a "Bluetooth communication interface" as part of a "beaconing data processing system." The plain and ordinary meaning of the claim phrase "Bluetooth communication interface" should control, because a POSITA reading this claim term along with the patent specification would readily understand this claim phrase to mean precisely what it says: it is an interface for communicating in the Bluetooth wave spectrum or range. Ex. H, Sharony Decl. ¶ 48. Despite consisting of terms that are very common in the telecommunication arts, Apple hopes to limit the claim term "Bluetooth" to specific published standards, namely "Bluetooth as defined in version 2.1 + EDR and earlier versions of the Bluetooth Core Specification." Apple's proposed limitation is contrary to the plain and ordinary meaning of the claim term, is inconsistent with the teachings of the specifications for the Patents-in-Suit, is

contrary to what was known to POSITA as of the priority date regarding Bluetooth, and fails to provide any clarity. Apple's proposal should be rejected.

The claim phrase "Bluetooth communication interface" consists of three commonly understood terms from the telecommunication arts. The heart of Apple's argument focuses on the term "Bluetooth."<sup>3</sup> Bluetooth<sup>4</sup> is a brand name for a short range wireless transmission technology that transmits in a radio frequency (RF) wave spectrum or range. Ex E. Not including the claims the word "bluetooth" or "Bluetooth" is found three times in the patent specifications. In each instance (reproduced below), the inventor used "bluetooth" or "Bluetooth" expressly to reference "a class of Radio Frequency (RF) wave spectrum."

Locating functionality may incorporate triangulated locating of the MS, for example using a class of Radio Frequency (RF) wave spectrum (cellular, WiFi (some WiFi embodiments referred to as WiMax), bluetooth, etc), and may use measurements from different wave spectrums for a single 60 location determination (depends on communications interface(s) 70 available). A MS may have its whereabouts determined using a plurality of wave spectrum classes available to it (cellular, WiFi, bluetooth, etc). Dkt. 32-6, '994 Patent, Col. 6:55-63, Dkt. 32-4, '868 Patent, Col. 6:12-25 (**emphasis supplied**).

Presence of field 2490d indicates to send processing feeding from queue 24 to target the MS ID over the specified comm. interface ( e.g. when MS has a plurality of comm. interfaces 70 (e.g. cellular, WiFi, Bluetooth, etc; i.e. MS supports multiple classes of wave spectrum)). Dkt. 32-6, '994 Patent, Col. 121:11-14; Dkt. 32-4, '868 Patent, Col. 105:50-55. (**emphasis supplied**).

In the specifications for the Patents-in-Suit, the inventor did not refer to any particular specification or published protocol for Bluetooth. Ex. H, Sharony Decl. ¶ 49. A POSITA would

<sup>3</sup> The other words in the claim phrase are not addressed by Apple. However, they are common ordinary words. "Communication" simply relates to transmitting information. See e.g., <https://www.ahdictionary.com/word/search.html?q=communication>. And, "interface" is a means for a computer and another entity to interact. See e.g., Ex. A, C, D, G.

<sup>4</sup> According to Bluetooth SIG, Inc., the name Bluetooth was based on Scandinavian King Harald "Bluetoth" Gormsson," and was intended as a temporary code name for short-range radio technology created by Intel, Ericsson, and Nokia in 1996. See <https://www.bluetooth.com/about-us/bluetooth-origin/>.

also not understand the discussion of "Bluetooth" in the patent specifications to suggest any relationship to a particular standard or protocol, let alone requiring compliance a specific published standard or protocol. Id. With respect to Bluetooth, a POSITA recognizes that the RF wave spectrum for Bluetooth, regardless of the version of published standard, is 2.4Ghz. Id. at ¶ 51. Thus, the plain and ordinary meaning of "Bluetooth communication interface" as explained in the patent specifications is a means for transmitting data in the known wave spectrum for Bluetooth.

It is further notable that several teachings from the specification for the pertinent patents would demonstrate to a POSITA that the inventor intended for "Bluetooth" to include technologies extending well beyond the Bluetooth standards published as of the priority date. Ex. H, Sharony Decl. ¶¶ 52-53. As of the filing date, a POSITA would have been fully aware of Bluetooth technological developments in the art, which were going to be included in finalized standards publications in the near future, and which just needed to go through formalization procedures. For example, before the priority date, low power consumption technological enhancements and features were known in the art to be included within upcoming Bluetooth standards. Id. Indeed, these enhancements and features were fully described in the specifications for the Patents-in-Suit, and a POSITA would have recognized that "Bluetooth" in the Patents-in-Suit included these enhancements. Ex. H, Sharony Decl. ¶ 51.

Apple's proposed construction, rather than provide clarity, renders the scope of the claims less clear. The disputed claim term is "Bluetooth communication interface," yet Apple's proposed construction disregards "communication interface," and instead attempts only to define "Bluetooth" as "Bluetooth as defined in version 2.1 + EDR and earlier versions of the Bluetooth Core Specification." It is improper to simply discard the claim terms "communication" and

"interface" as Apple suggests. *Akzo Nobel Coatings, Inc. v. Dow Chemical Co.*, 811 F.3d 1334, 1340 (Fed. Cir. 2016). Moreover, under Apple's construction, it is unclear whether a communication interface compatible with Bluetooth version 2.1 + EDR and earlier versions, as well as later standards, would fall within the scope of the claims. For this reason as well, Apple's proposed construction should be rejected.

Apple cites to a handful of cases in support of its attempt to limit the claims to the Bluetooth standard that had been released as of the filing date for the Patents-in-Suit. Apple's cases are inapposite.

Apple cites to *Uniloc USA, Inc. v. Apple, Inc.*, Case No. 19-cv-1692, 2021 WL 432183, at \*8 (N.D. Cal. Jan. 15, 2021) claiming that the court there held that the claim terms "Bluetooth messaging" and "Bluetooth protocols" should be limited to functionality described in the Bluetooth Core Specification "as it existed at the time of the claimed invention." Dkt. 32 at 7. Contrary to Apple's representation, the court in *Uniloc* found that "Bluetooth messaging" and "Bluetooth protocols" mean "Bluetooth [messaging/protocols] as defined in the Bluetooth specification versions 1.1 or earlier (including versions 1.0A and 1.0B), **and that remain in later versions of the Bluetooth specification.**" *Uniloc*, 2021 WL 432183, at \*8 (emphasis supplied). In sharp contrast to Apple's representation, the *Uniloc* court rejected the argument that the claim terms were limited to the Bluetooth protocol at the time of the claimed invention, and instead found that it included features from earlier specifications that were also found in later versions. All specifications for Bluetooth include wireless transmissions in the 2.4Ghz wave spectrum. Ex. H, Sharony Decl. ¶ 51. Moreover, the relevant claim in *Uniloc* is wholly distinguishable from the patent claims here. In *Uniloc*, the independent claim specified that "the beacon is arranged to broadcast a series of inquiry messages each in the form of a

plurality of predetermined data fields arranged according to a **first communication protocol.**"

*Uniloc*, Case No. 19-cv-1692, 2021 WL 432183, at \*3 (emphasis supplied). This communication protocol is then specified in the dependent claims as comprising "Bluetooth messaging" or "Bluetooth protocols". *Id.* at \*8. Thus, in *Uniloc*, the claims at issue expressly recited a "protocol." That is not the case here, however, because the claims here do not recite a "protocol," standard, specification, or the like, and neither do the specifications.

Apple further cites to *Fundamental Innovation Sys. Int'l LLC v. Samsung Elecs. Co.*, Case No. 2:17-cv-145-JRG-RSP, 2018 WL 647734, at \*11 (E.D. Tex. Jan. 31, 2018). In *Fundamental Innovation*, the claims and specification required a particular type of connector, namely, USB connector, and for this reason, the claims were limited to USB connectors that existed at the time of the claimed invention. *Id.* As discussed, however, the inventor of the Patents-in-Suit here used "Bluetooth" not to reference a standard, but instead, only used "Bluetooth" to reference a class of wave range spectrum. As such, *Fundamental Innovation* is distinguishable.

In *Fundamental*, the court relied on a district court case from the Western District of Wisconsin, *Extreme Networks, Inc. v. Enterasys Networks, Inc.*, No. 07-C-229-C, 2007 WL 5601497, at \*16-\*17 (W.D. Wis. Nov. 21, 2007). For the claim term at issue in *Extreme Networks*, the claim expressly recited a standard specific compliant device, namely, IEEE 802 compliant. The district court focused on this fact to define the claimed device according to its compliance with a standard that was in existence at the time of filing. Again, that is not the case here. The claims at issue and the patent specification do not state anything about being compliant with any Bluetooth standard, and instead, only refer to Bluetooth as a class of wave spectrum.

Apple's proposed construction improperly attempts to tie the meaning of "Bluetooth" to a published standard, indeed one that is not even mentioned in the patent specification, rather than connecting the meaning of "Bluetooth" to the teachings in the patent. This is clearly the wrong analysis. Instead, "the 'ordinary meaning' of a claim term is its meaning to the ordinary artisan after reading the entire patent." *Wisconsin Alumni Research Foundation v. Apple Inc.*, 905 F.3d 1341, 1348 (Fed. Cir. 2018), quoting *Phillips*, 415 F.3d at 1321. In this case, "Bluetooth," in the context of the patents' teachings, is a wave range spectrum, and a "Bluetooth communication interface" merely is a structure for transmitting messages within the Bluetooth wave range spectrum.

**C. "application" ('011 Patent, Claims 1, 11, 20; '994 Patent, Claims 1-3, 8-10, 14-16; '868 Patent, Claim 1; '804 Patent Claims 1, 11)**

BillJCo's Proposed Construction	Apple's Proposed Construction
<i>Plain and ordinary meaning</i>	<i>An entity of processing which can be started, terminated, and have processing results. Applications (i.e. executables) can be started as a contextual launch, custom launch through an API or command line, or other launch method of an executable for processing.</i>

Apple seeks to construe a word that is commonly understood by POSITA, as well as laypersons, namely, "application." In the context of computer science, an application is simply a computer software program for performing a function. Ex. H, Sharony Decl. ¶ 38; Ex. B, C, D. In some cases, such as here, "the ordinary meaning of claim language may be readily apparent and claim construction will involve little more than the application of the widely accepted meaning of commonly understood words." *Phillips*, 415 F.3d at 1314.

Throughout the relevant patent specifications, the word "application" is used according to its plain and ordinary meaning. For example, in the "Field of the Invention" the specifications state: "The present disclosure relates generally to location based services for mobile data

processing systems, and more particularly to location based exchanges of data between distributed mobile data processing systems for locational applications." Dkt. 32-4, '868 Patent, Col. 1:20-24; Dkt. 32-1, '011 Patent, Col. 1:36-40; Dkt. 32-5, '804 Patent, Col. 1:20-24. In the "Brief Summary of the Invention" the specifications also use "application" according to its plain ordinary meaning. See e.g., Dkt. 32-4, '868 Patent, Col. 4:36-39; Dkt. 32-1, '011 Patent, Col. 4:62-65; Dkt. 32-5, '804 Patent, Col. 4:36-39 ("It is an advantage herein for enabling useful distributed applications without the necessity of having a service, and without the necessity of users and/or systems registering with a service.").

Despite this, Apple arrives at a narrow proposed construction based on a verbatim incorporation into the claim of an excerpt from an isolated preferred embodiment in the patent specification illustrative pertaining to a particular type of process called "atomic commands."<sup>6</sup> Dkt. 32 at 9. Based on this isolated example, Apple seeks to take the well-understood claim term "application" and to include verbiage about what an application is capable of doing, e.g., be started, be terminated, have processing results, and be started in particular ways. Apple's reliance on one of many preferred embodiments falls far short of the clear and unmistakable evidence necessary to vary from the plain and ordinary meaning of "application," and should be rejected.

Apple's proposed claim construction further suffers from the problem that it does not define the boundaries of the invention. Instead, Apple lists what the claimed application is capable of doing by proposing to construe the claim based on what the application "can" do. A POSITA would recognize this teaching as explaining a possibility, not a requirement. Ex. H, Sharony Decl. ¶ 39. To the extent Apple is suggesting that an "application" as recited in the

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<sup>6</sup> An "atomic" command or operation is one that is performed by a computer completely independently of other processes. See e.g., <https://www.techopedia.com/definition/3466/atomic-operation>

claims must have all of the listed capabilities, such a suggestion is without logic. For example, Apple's proposed construction would require an application be "launched" in multiple ways, e.g., a contextual launch, custom launch through an API or command line, or some "other launch method." It makes no logical sense that an application must be launched in all of these different ways. Moreover, Apple's own proposal which includes "other launch method" provides no guidance.

Apple's proposed claim construction is further unhelpful to a fact finder in that it appears to require that the application have "processing results." Apple gives no explanation as to what "processing results" means. To the extent that Apple is suggesting that an application must have the capability of producing an output to the user, such a requirement would be improper and contrary to the teachings of the relevant patents. While some applications may have such a capability, the specification for the Patents-in-Suit make clear that this is not a requirement of an "application." For example, in the '011 Patent, the specification states:

Another advantage is to provide a MS which can be user configured for any desired behavior based on location, whereabouts, and "in the vicinity" conditions for the MS and/or its peer MSs during travels. A user has infinite control over providing a processing "character" for the MS. Also, various MS applications are generically supported with integrated locational based features and functionality. Characters may be used to automatically perform: MS configuration and system variable setting, clip-board and paste operations, MS input and output control, automatic communications with other MSs or data processing systems, enabling/disabling a feature or service, and many other features. Dkt. 32-1, '011 Patent, Col. 14:19-31.

As shown, the "processing" by the applications is explained by the specification as not requiring any sort of output to the user. For example, it may simply enable or disable a feature or service.

Apple's proposed claim construction adds unnecessary and unwarranted complexity and confusion to a claim term that requires no construction, and should be rejected. By contrast, the

wealth of the evidence demonstrates that "application" should simply be afforded its plain and ordinary meaning, as BillJCo proposes.

**D. "wireless data record" ('011 Patent, Claims 1, 11, 20; '868 Patent, Claim 1; '804 Patent, Claims 1, 10, 11, 12; '839 Patent, Claim 23; '994 Patent, Claims 1, 8, 14)**

BillJCo's Proposed Construction	Apple's Proposed Construction
<i>Plain and ordinary meaning</i>	<i>a wirelessly transmitted data record including at least a date/time stamp field, a location field, and a confidence field</i>

"Wireless data record" is a phrase that has a plain and ordinary meaning, and there is no clear and unambiguous intrinsic evidence that would necessitate varying from this plain and ordinary meaning. Indeed, Apple offers no suggestion that any of the words forming the phrase "wireless data record" are unclear. Yet, Apple proffers a claim construction for a straightforward claim phrase based on a verbatim incorporation of words from the specification regarding a preferred embodiment of the invention – a decidedly improper exercise. *Liebel-Flarsheim*, 358 F.3d at 913 (explaining that "it is improper to read limitations from a preferred embodiment described in the specification—even if it is the only embodiment—into the claims absent a clear indication in the intrinsic record that the patentee intended the claims to be so limited").

"Wireless" simply refers to a method of transmitting information without wires; "data" simply means information; and "record" simply means an account of information. Ex. H, Sharony Decl. ¶ 92. As such, the plain and ordinary meaning for a "wireless data record" is simply an account of information transmitted without wires.

Apple argues that the inventor acted as its own lexicographer and gave a more narrow meaning to "wireless data record," and in particular, required that the "wireless data record" include specific data fields: "a date/time stamp field, a location field, and a confidence field." Apple focuses on an isolated excerpt from a preferred embodiment discussed in the '011 Patent

specification related to a core section of the wireless data record or "WDR." Dkt. 32 at 10. Based on this, Apple argues the inventor unambiguously limited the meaning of "wireless data record" to require specific types of data. Id. Apple is wrong for several reasons.

First, Apple's reliance on a single excerpt from the specification is highly problematic because its cherry-picked excerpt is expressly recited as a preferred embodiment.

**FIG. 11A depicts a preferred embodiment of a Whereabouts Data Record (WDR) 1100 for discussing operations of the present disclosure.** A Whereabouts Data Record (WDR) 1100 may also be referred to as a Wireless Data Record (WDR) 1100. A WDR takes on a variety of formats depending on the context of use. There are several parts to a WDR depending on use. There is an identity section which contains a MS ID field 1100a for identifying the WDR. Field 1100a can contain a null value if the WDR is for whereabouts information received from a remote source which has not identified itself. MSs do not require identities of remote data processing systems in order to be located. There is a core section which is required in WDR uses. The core section includes date/time stamp field 1100b, location field 1100c, and confidence field 1100d. Dkt. 32-1, Col. 78:54-62 (Apple's cited portion underlined, bolded emphasis added).

Apple's effort to limit the claim scope to this single preferred embodiment is decidedly improper. *Liebel-Flarsheim*, 358 F.3d at 913. Further, as this portion of the specification explains, the wireless data record does not require any particular data fields. Id. ("[a] WDR takes on a variety of formats depending on the context of use. There are several parts to a WDR depending on use."). Even Apple concedes as much. Dkt. 32 at 10.

Further fatal to Apple's assertion that the claim language should be limited to the aforementioned preferred embodiment are other express teachings from the specifications where it is explained that the wireless data record does not have to include Apple's listed data fields. For example, the '994 Patent specification states:

**[W]hen a WDR is referenced in this disclosure, it is referenced in a general sense so that the contextually reasonable subset of the WDR of FIG. 11A is used. ... A WDR 1100 may be redefined with a core section containing only the MS ID field 1100a.** The MS ID field 1100a facilitates routing of the WDR, and addressing a WDR, for example in a completely wireless transmission of FIGS. 13A through 13C. In an embodiment with a minimal set of WDR fields, **the WDR may contain only two (2)**

**fields: a MS ID field 1100a and application fields 1100k.** Dkt. 32-6, '994 Patent, Col. 444:66 – 445:12.

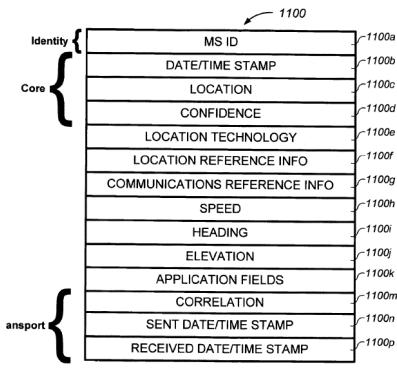


Fig. 11.

As is plainly stated, the WDR, i.e., wireless data record, can comprises as little as the MS ID, which is referred to in Fig. 11 as reference number 1000a, or only the MS ID and "application fields" 1000k. Moreover, even the "core section," which this portion of the specification teaches is optional, may only include a "MS ID field." Similar disclosures are found in the '011 Patent and '868 Patent. Dkt. 32-1, '011 Patent, Col. 444:45-55; Dkt. 32-4, '868 Patent, Col. 281:67 – Col. 282:10. This same construction should apply to each of the Patents-in-Suit. *Omega Engineering, Inc v. Raytek Corp.*, 334 F.3d 1314, 1334 (Fed. Cir. 2003) ("unless otherwise compelled ... the same claim term in the same patent or related patents carries the same construed meaning"). Thus, contrary to Apple's argument, the specification expressly explains that the WDR can include any combination of different data fields, and does not require that it include the specific data fields Apple proposes. A POSITA would also recognize that these teachings demonstrate that the claims are not limited in the manner Apple proposes. Ex. H, Sharony Decl. ¶ 93. Apple's proposed construction should be rejected, and the plain ordinary meaning adopted.

#### E. "application context identifier data" ('011 Patent, Claims 1, 11, 20)

BillJCo's Proposed Construction	Apple's Proposed Construction
<i>Plain and ordinary meaning</i>	<i>data identifying a context in which the application was presented to a user via a user interface</i>

In large part, Apple's proposed construction is nothing more than a reorganization of the words in the claim. There is simply no need for Apple's proposed reorganization. Beyond Apple's reorganization, it hopes to add the requirement that the data is "presented to a user via a user interface." The claim includes no such requirement, and it is improper to include it.

With regard to what "application context identifier data" is, Apple merely takes the words of the subject claim term along with words later in the claim, and then rearranges them. Apple does not even suggest that it is necessary to do so to understand the claim. Apple's reorganization should be rejected.

The more problematic part of Apple's proposed construction is the additional requirement that the data "was presented to a user via a user interface." Apple's additional language is wholly unsupported. Nowhere in the claim language is there the requirement that the "application context identifier data" **"was presented to a user** via a user interface." Instead, as shown below, the claim expressly recites something different. The claim specifies that the "application context identifier data" identifies "location based content for presenting by a location based application." This location based application "is notified upon receipt of the ... wireless data record having the application context identifier data." The location based application also "presents the location based content to the user interface" of a mobile processing system. Dkt. 31-1, '011 Patent, Col. 448:50-62.

application context identifier data identifying location based content for presenting by a location based application of the receiving user carried mobile data processing system to a user interface of the receiving user carried mobile data processing system upon the receiving user carried mobile data processing system determining with a local memory maintained location based configuration monitored with background processing of the receiving user carried mobile data processing system during mobility of the receiving user carried mobile data processing system anticipating receipt of the broadcast unidirectional wireless data record having the application context identifier data in response to a user activating the location based application with the user interface of the

receiving user carried mobile data processing system wherein the location based application:

invokes a location based API of the receiving user carried mobile data processing system for the location based configuration anticipating the receipt of the broadcast unidirectional wireless data record having the application context identifier data,

is notified upon the receipt of the broadcast unidirectional wireless data record having the application context identifier data configured in the location based configuration, and

presents the location based content to the user interface of the receiving user carried mobile data processing system, the location based content originating from another data processing system that is remote to both the sending data processing system and the receiving user carried mobile data processing system. Id.

Contrary to Apple's proposed construction, the claim includes no requirement that the application context identifier data **was presented to a user via a user interface**. Indeed, such a requirement makes no sense in the context of the overall claim. The claim specifies that the location based application presents the location based content, which the claim earlier recited is identified by the application context identifier data, to the user interface of the mobile user. It would be illogical for the application context identifier data to be data that "**was presented** to a user via a user interface," before the data **is presented** to the user interface.

Apple's proposed construction is also inconsistent with the teachings in the patent specification. For example, the specification explains that the application need not be presented to the user at all, and instead, could be in the background and the content could be presented on a different application or on the home screen (alert or indication) and not to the user at all. Ex. H, Sharony Decl. ¶ 36. The specification describes "Automatic Application Association Processing" (Dkt. 31-1, '011 Patent at 423:45-424:56), and states "Cross application addressing refers to being involved with one or more MS users within the context of one application and then addressing those same users in context of a different application. This involves mapping an identifier in context of one application with an identifier in context of another application." (Dkt. 31-1, '011 Patent at 423:48-53). A POSITA would understand that this means that the context of

one application can be mapped to another context in a different application, and there is no requirement for presenting any application to a user via a user interface. Ex. H, Sharony Decl. ¶ 36. A POSITA would also recognize that Fig. 65B-5 describes composing an application context without presenting an application to the user via a user interface in in Operand 231, which states "Composing an application context causes invocation of the application [but not presenting the application] at the MS and then executing a macro within the application context." Ex. H, Sharony Decl. ¶ 36 (citing, Dkt. 31-1,'011 Patent at Fig. 65B-5). As such, a POSITA would have understood that "application context identifier data" can be data that references some application context and a block (or step) of the application processing that can be identified with data, and no user interface is required. Id. In addition, the specification teaches contextual charter creation based on application context identifier data without interfacing with the user. Dkt. 31-1, Patent '011 Patent, Col. 318:56-62.

Apple's proposed construction injecting an unclaimed and incorrect requirement to the claims should be rejected.

**F. "an application in use at the sending data processing system"  
('804 Patent, Claim 1)**

BillJCo's Proposed Construction	Apple's Proposed Construction
<i>Plain and ordinary meaning</i>	<i>an application running on the sending data processing system</i>

Apple argues that the plain and ordinary meaning of "an application in use at the sending data processing system" requires the application to be "running" on the sending data processing system. In so doing, Apple seeks to substitute the everyday phrase "in use" with "running." At no time does Apple suggest that "in use" is at all unclear or that it requires a special definition. Instead, Apple argues that "running" is consistent with "in use." Whether "running" is consistent with "in use," even if correct, does not justify substituting "in use" with "running."

The claim language plainly recites that the application on the sending data system is "in use." There is nothing unclear about this. Moreover, the specification uses the term "applications in use" (i.e., plural applications) when referring to the MS ("Whereabouts timeliness is critical depending on the **applications in use** at the MS." Dkt. 32-5, '804 Patent, Col. 74:54-55. A POSITA would recognize that this teaches that "in use" does not necessarily mean that all the applications are running concurrently because some applications may be invoked at different times. Ex. H, Sharony Decl. ¶¶ 66-67. The specification uses the phrase "in accordance with **active** applications in use at the time." Dkt. 32-5, '804 Patent, Col. 75:11-12. A POSITA would understand this teaching from the specification to suggest that some applications in use may not be engaged with by the user. For example, on one's smartphone, a user may be using an application such as YouTube by watching videos, while another application, such as Gmail may be in use in the background in a low power or sleep mode monitoring for emails, but not being engaged with by the user, e.g., composing emails. Ex. H, Sharony Decl. ¶¶ 66-67.

There is no reason to alter that plain and ordinary meaning of "in use" to substitute it for "running" especially where "running" does fully encompass applications that may be "in use." Apple's proposed construction should be rejected.

**G.     "an originating identity of the whereabouts data" ('267 Patent, Claim 1)  
"identity information for describing an originator identity" ('804 Patent, Claim 1)**

BillJCo's Proposed Construction	Apple's Proposed Construction
<i>Plain and ordinary meaning</i>	<i>an identifier that uniquely identifies the device originating the whereabouts data</i>

The subject claim phrases are found in claim 1 of the '267 Patent and claim 1 of the '804 Patent, respectively. For each of these patents, Apple seeks to inject the word "uniquely" into

claims that do not recite that the originating or originator identity must be "unique." This narrowing language should be rejected.

The disputed claim language is part of the following claimed step: "receiving, for processing by the mobile data processing system, the whereabouts data including an originating identity of the whereabouts data...." As Apple correctly states, "[b]ecause the claimed whereabouts data is received for processing by the mobile data processing system, the data must have been transmitted by some other device...." Dkt. 32 at 20. Apple then, however, incorrectly suggests that the transmitting device must have a unique identifier. Essentially, Apple hopes to limit the originating or originator identity to a unique ID. In so doing, Apple seeks to preclude the scope of the claims from encompassing a system where a transmitting device may have the same ID as other transmitting devices, such as would represent a class or group of transmitting devices, e.g., a beaconing transmitter may be for a particular class or group of stores such as Starbucks or McDonald's.

As an initial matter, Apple improperly seeks to impose restrictions on the transmitting unit, which is not even part of the subject claims. This, by itself, makes no sense.

The '267 Patent and '804 Patent specifications further teach that the claimed invention may encompass either a unique ID for even the mobile receiving unit, e.g., phone number or serial number, or alternatively, that it may have a nonunique identifier. See Dkt. 32-3, '267 Patent Col. 31:33-36; Dkt. 32-5, '804 Patent Col. 24:32-38. For example, the specifications explain that the mobile receiving units can have a non-unique identifier: "**a group identifier handle indicating membership to a supported/known group....**" Id. Thus, not even the receiving unit requires a unique identifier. Ex. H, Sharony Decl. ¶¶ 72-73.

The specifications further teach an embodiment where a transmitter, such as an antenna or cell tower and the service associated therewith sends whereabouts data to a mobile system in range through continuous, pulsed, broadcast, or beaconing. Dkt. 32-3, '267 Patent Col. 31:9-24; Dkt. 32-5, '804 Patent Col. 24:19-26. In another example, the specification teaches in proximity or "within range" embodiments, where transmitter locates a MS located when it is "coming in range" to an antenna emitting signals, and further explains that "a unique MS identifier, or MS group identifier, for authenticating an MS for locating the MS is not necessary." Dkt. 32-5, '804 at 31:21-33. This is because the MS will perform measurements using the antenna location information and time synchronization signal (NTP) to determine how close (e.g., radius range) "it is located to the location of the antenna." Ex. H, Sharony Decl. ¶ 72. This suggests to a POSITA that in cases of location based on proximity even a unique identifier for the receiving MS is not necessary, let alone for the originator or sending device (i.e., the antenna).

A POSITA would further understand based on the specification of the '804 Patent that there is no reason to require that "an identifier [] **uniquely** identifies the originator device." The "originator identity" in claim 1 is associated with the sending data processing system. The '804 specification only discusses a unique identifier for the **receiving** data processing system (i.e., the MS or Indirectly Located Mobile data processing system (ILM)). Ex. H, Sharony Decl. ¶ 71. This is because the sending data processing system (i.e., the base station or the Directly Located Mobile data processing system (DLM)) broadcasts (i.e., one-to-many communications) to many MS or ILM, and a MS can be uniquely identified so that it could determine or identify which broadcast data is intended or destined for it.<sup>7</sup> Id. A POSITA would not be compelled by the

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<sup>7</sup> Moreover, the specification discloses that the MS ID field (1100a) can contain a null value such that MSs do not require identities of remote data processing systems in order to be located. Dkt. 32-5, '804 Patent, Col. 57:46-51 ("There is an identity section which contains a MS ID field

patents, however, to restrict the sending device to having "identifier that uniquely identifies the originator device" as Defendant suggests. Id.

Accordingly, Apple's addition of "uniquely" to the subject claim terms should be rejected. Instead, the plain and ordinary meanings should be applied as BillJCo proposes.

#### H. "a frame" ('839 Patent, Claim 24)

BillJCo's Proposed Construction	Apple's Proposed Construction
<i>Plain and ordinary meaning</i>	<i>a single still image</i>

The claim term "frame" appears in claim 24 of the '839 Patent, a claim depending from independent claim 1. The term "frame" is recited in dependent claim 24 as a part of the data received by a receiving data processing system for triggering when to present information.

The method of claim 1 wherein said event specification to be monitored by said receiving data processing system for triggering when to present said information includes a condition for detecting content in a frame captured by said receiving data processing system. Dkt. 32-2, '839 Patent, Col. 66:44-49.

In context, the claimed "frame" relates to a data transmission trigger. "Frame" has a plain and ordinary meaning to a POSITA in that context, namely, a structure of data, e.g., a data packet.

Ex. H, Sharony Decl. ¶ 90; Ex. B, D, G.

The '839 Patent specification describes such triggering events, and demonstrates that the triggering event may be a packet of data. For example, the specification teaches that whether or not to trigger an event may be determined by evaluating a criteria parameter, such as a file name, file type, file creator, file owner, file attribute, etc. Dkt. 32-2, '839 Patent, Col. 51: 44-61. Data packets, i.e., frames, with this information are what a POSITA would understand to relate to the claimed "frame." Ex. H, Sharony Decl. ¶ 90.

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1100a for identifying the WDR. Field 1100a can contain a **null value** if the WDR is for whereabouts information received from a remote source which **has not identified itself**. MSs **do not require identities** of remote data processing systems in order to be located.")

Despite this, Apple focuses uses of "frame" from the specification pertaining to video recordings. The patent claims do not specify that the claimed "frame" is for video processing scenarios. As such, Apple's citations to the specification limited to such scenarios is inappropriate.

The plain and ordinary meaning of "frame" as a packet of data is consistent with the teachings of the '839 Patent specification. For example, the specification teaches that in some embodiments the mobile units determine a movement event or automated presentation processing, information such as movement tolerances, location area information, date and time criterial are monitored. Dkt. 32-2, '839 Patent, Col. 54: 37-50. Along with these criteria, a "frame" may be compared with "recognized data (e.g., text)." Id. Thus, requiring that a "frame" be limited to a single still image as Apple suggests makes no sense in the context of the patent, and should be rejected. Ex. H, Sharony Decl. ¶ 90.

Apple further pins its hopes of limiting the claim to a still image based on the word "capture", and reasons that a capture must be an image. Apple did not identify "capture" as a term for construction. In computing, capture refers to obtaining and storing information. See, <https://www.computerhope.com/jargon/c/capture.htm>. This may include a screen capture, but is not limited thereto. See, <https://www.techopedia.com/definition/11155/capture-data-acquisition>. That the word "frame" or the capturing thereof was intended to relate to data capture, and was not intended to be limited to an image, is readily apparent from the aforementioned discussion of a "frame" being compared with "text."

Accordingly, the plain and ordinary meaning of "frame" in the appropriate context, namely data transmission, is what controls. Apple's proposed construction should be rejected.

**V. Conclusion**

For the reasons discussed above, Plaintiff BillJCo respectfully requests that this Court find that the disputed claims terms be afforded their plain ordinary meanings.

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**CERTIFICATE OF SERVICE**

The undersigned hereby certifies that a true and correct copy of the foregoing document has been served via e-mail on **December 30, 2021** to all counsel of record who are deemed to have consented to electronic service via the Court's CM/ECF system.

*/s/Brian R. Landry*